WHAT IS CLAIMED IS:

1. An optical element comprising:

a first member, which has a first surface including a first concave portion; and

a second member, which has a second surface including a second concave portion and which transmits incoming light therethrough, the first and second members being disposed so that the first and second surfaces are opposed to each other,

wherein first and second reflective regions have been formed on the first and second concave portions, respectively, and

wherein at least part of the incoming light that has been transmitted through the second member is reflected from at least one of the first and second reflective regions.

2. The optical element of claim 1, wherein the first surface includes the first concave portion and a flat portion, the second surface includes the second concave portion and a flat portion, and the first and second concave portions are so disposed as not to face each other.

3. The optical element of claim 1, wherein the first and second concave portions have substantially the same shape.

4. The optical element of claim 1, wherein each of the

first and second concave portions has a triangular pyramidal shape, and

wherein the first and second concave portions constitute a part of a corner cube.

5. The optical element of claim 4, wherein at least part of the incoming light that has been transmitted through the second member is reflected from both of the first and second reflective regions so that the incoming light is retro-reflected.

6. The optical element of claim 1, wherein at least one of the first and second reflective regions is made of a metal film.

7. The optical element of claim 1, wherein the second reflective region is made of a material that has a refractive index lower than that of the second member.

8. The optical element of claim 7, further comprising a member for filling the first concave portion on the first reflective region,

wherein the first reflective region is made of a material that has a refractive index lower than that of the member for filling the first concave portion.

9. A reflective display device comprising:

the optical element as recited in claim 1; and

a light modulating layer interposed between the first and second members.

10. The reflective display device of claim 9, wherein the light modulating layer comprises a scattering-type liquid crystal layer.

11. The reflective display device of claim 10, further comprising:

a first flattening member that fills the first concave portion of the first member; and

a second flattening member that fills the second concave portion of the second member,

wherein the scattering-type liquid crystal layer is interposed between the surface of the first member that has been flattened by the first flattening member and the surface of the second member that has been flattened by the second flattening member.

12. The reflective display device of claim 10, wherein the scattering-type liquid crystal layer fills the first concave portion of the first member.

13. A reflective display device comprising:

the optical element as recited in claim 4;

a transparent substrate disposed to face the optical element; and

a light modulating layer, which is interposed between the optical element and the transparent substrate and controlled to assume either a light scattering state or a light transmitting state.

14. An array of corner cubes, each having three facets that are opposed substantially perpendicularly to each other,

wherein each of the three facets of each said corner cube includes: a first surface of a concave portion that has been formed in a base member; and a second surface of a convex member that has been formed on the base member so as to be adjacent to the concave portion.

15. The array of corner cubes of claim 14, wherein the base member includes the concave portion and a flat portion adjacent to the concave portion, and

wherein the convex member has been secured onto the flat portion.

16. The array of corner cubes of claim 14, wherein the first surface of the concave portion and the second surface

of the convex member each have a planar shape of a rectangular isosceles triangle, and

wherein each of the three facets of each said corner cube is substantially square.

17. A method of making an optical element, comprising the steps of:

forming a first concave portion in a first member and forming a first reflective region on the first concave portion;

forming a second concave portion in a second member and forming a second reflective region on the second concave portion; and

disposing the first and second members in such a manner that a surface of the first member in which the first concave portion has been formed is opposed to a surface of the second member in which the second concave portion has been formed.

18. A method of making a corner cube array, comprising the steps of:

a) preparing a first member in which at least one first concave portion has been formed in a triangular pyramidal shape, the first concave portion being made up of three triangular facets that are opposed substantially perpendicularly to each other;

b) preparing a second member in which at least one second concave portion has been formed in the triangular pyramidal shape, the second concave portion being made up of three triangular facets that are opposed substantially perpendicularly to each other; and

c) disposing the first and second members in such a manner that a surface of the first member in which the first concave portion has been formed is opposed to a surface of the second member in which the second concave portion has been formed,

wherein the corner cube array is made up of a plurality of cubic corner cubes, each of which comprises a first set of triangular planes defined by the first concave portion and a second set of triangular planes defined by the second concave portion.

19. The method of claim 18, further comprising the steps of:

forming a reflective region on each of the three triangular facets of the first concave portion; and

forming a reflective region on each of the three triangular facets of the second concave portion,

wherein the second member is transparent, and

wherein the reflective regions provided for the first concave portion and the reflective regions provided for the

second concave portion are arranged substantially continuously to each other so that when the reflective regions provided for the first concave portion are used as concave reflective regions, the reflective regions provided for the second concave portion are used as convex reflective regions.

20. The method of claim 18, further comprising the steps of:

filling the triangular pyramidal first concave portion of the first member with a convex member having a triangular pyramidal shape corresponding to that of the first concave portion before the step c) is performed; and

securing the convex member in the triangular pyramidal shape onto on the second member after the step c) has been performed.

21. A method of making a corner cube array, comprising the steps of:

a) preparing a base member including a plurality of triangular pyramidal concave portions, each of which has three perpendicularly opposed equilateral triangular facets, in a predetermined surface thereof; and

b) forming a plurality of triangular pyramidal convex members, each of which has three perpendicularly opposed

equilateral triangular facets, on the predetermined surface of the base member.

22. The method of claim 21, wherein the step b) comprises the steps of:

disposing a retaining member on the predetermined surface of the base member to retain the convex members thereon; and

transferring the convex members from the retaining member onto the predetermined surface of the base member.

23. The method of claim 21, wherein the step b) comprises the steps of:

disposing a retaining member on the predetermined surface of the base member to retain the convex members thereon; and

leaving the convex members on the predetermined surface of the base member by dissolving the retaining member.

24. The method of claim 21, wherein the step a) comprises the steps of:

forming grooves in three directions of a base material;

transferring unevenness of the base material, in which the grooves have been formed, to a transfer material; and

filling every other one of concave portions that have

been formed in the transfer material.

25. The method of claim 21, wherein the step a) comprises the step of anisotropically etching {111} planes of a cubic single crystalline substrate.

26. The method of claim 21, wherein the step a) comprises the step of pressing a pin, which has a triangular pyramidal convex portion made up of three perpendicularly opposed equilateral triangular facets, onto a base material.

27. A die for use to make a micro corner cube array comprises:

a base member including a plurality of triangular pyramidal concave portions, each of which has three perpendicularly opposed equilateral triangular facets, in a predetermined surface thereof; and

a plurality of triangular pyramidal convex members, each of which has three perpendicularly opposed equilateral triangular facets, formed on the predetermined surface of the base member.